



# UNITED STATES PATENT AND TRADEMARK OFFICE

W  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/862,449  | 05/23/2001  | Sung Han Kim         | 1514.1002           | 8882             |
| 21171   | 7590        | 02/05/2004           | EXAMINER            |                  |
| STAAS & HALSEY LLP<br>SUITE 700<br>1201 NEW YORK AVENUE, N.W.<br>WASHINGTON, DC 20005 |             |                      | THOMPSON, CAMIE S   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1774                |                  |

DATE MAILED: 02/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary****Application No.**

09/862,449

**Applicant(s)**

KIM ET AL.

**Examiner**

Camie S Thompson

Art Unit

1774

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on After Final Amendment filed 1/6/2004.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-10, 15-17 and 22-24 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 2,3,5-7,9 and 10 is/are allowed.

6) Claim(s) 15-17, 22 and 23 is/are rejected.

7) Claim(s) 1,4,8 and 24 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) All b) Some \* c) None of:

    1. Certified copies of the priority documents have been received.

    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    \* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Examiner regrets the untimely reopening of prosecution.
2. Applicant's after final amendment and accompanying remarks filed January 6, 2004 have been acknowledged.
3. Examiner acknowledges amended claims 7 and 15.
4. Examiner acknowledges cancelled claims 11, 13, 14, 18, 20 and 21.
5. The objection to claims 7 and 15 are withdrawn due to applicant's amended claims 7 and 15.

***Claim Objections***

6. Claims 1, 4 and 8 are objected to because of the following informalities: The  $R_i$  in claim 1 should read  $R_1$ . In claim 4, there is a period following the phrase "compound represented". The period was not present in the previous amendment. The  $R_i$  and the  $R_z$  in claim 8 should read  $R_1$  and  $R_2$ . Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Claims 15-17 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 is rendered indefinite because of the phrase "two or less aromatic hydrocarbon rings in a condensed state". A condensed structure requires two or more aromatic rings – not just one.

Art Unit: 1774

Claim 23 recites the limitation "triarylsilphenyl groups" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 23 depends on claim 22 and there is no recitation of triarylsilphenyl groups.

***Claim Rejections - 35 USC § 102***

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 15-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Igarashi, U.S. Patent Number 6,558,819.

Igarashi discloses a compound comprising an aryl group and triarylsilphenyl groups that is used in an organic electroluminescence display device as per instant claim 15 (see column 1, lines 50-column 2, line 36). It is also reasonable to expect the triarylsilphenyl groups of the Igarashi compound to be distorted as required by instant claim 16 in view of the last two lines of page 7 of the present specification.

10. Claims 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Kreuder et al., U.S. Patent Number 5,763,636.

Kreuder disclose polymers containing spirofluorene units and aryl groups that can be used for electroluminescent display devices as per instant claim 22 (see abstract; column 3, lines 45-60, column 6-9 and column 12, lines 55-68). In addition, the Kreuder reference discloses that the organic electroluminescence display device comprises a pair of electrodes and an organic layer formed between the pair of electrodes, the organic layer comprises material formed of an aryl group and spirofluorene groups as per instant claim 22 (see column 13, lines 33-58).

Art Unit: 1774

11. Claims 2-3, 5-7 and 9-10 are allowed.
12. Claims 1, 4 and 8 would be allowable if rewritten to overcome the objections for informalities noted in this office action.
13. Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly, can be reached at (571) 272-1526. The fax phone number for the Group is (703) 872-9306.

